

What Is Claimed Is:

1. A downloading apparatus for a digital broadcast receiver, comprising:
  - a signal process means for performing inverse-multiplexing of a supplied broadcast signal, for thus separating said signal into a video signal stream, an audio signal stream and an additional information signal stream, respectively;
  - 5 an input means for receiving a downloading mode selected by a user and a program name which will be downloaded;
  - 10 a control means for receiving said addition information signal stream when receiving the downloading mode, for thereby controlling a system to be updated with a corresponding program;
  - 15 a first store means for temporarily storing a new program which is transmitted during a program downloading operation; and
  - a second store means wherein a domain in which a program has been stored is updated with the new program in accordance with control of the control means.
2. The apparatus according to claim 1, wherein a packet identifier (PID) is used as said program name to be downloaded.
- 20 3. The apparatus according to claim 1, wherein the first store means is a RAM.
4. The apparatus according to claim 1, wherein the second store means comprises:
  - 25 a version byte domain wherein a version number of the main program is

written;

a downloading program domain wherein a downloading program is stored in order to receive new data; and

a main program domain wherein the main program is stored.

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5. The apparatus according to either claim 1 or claim 4, wherein the second store means is a flash memory.

10 6. A downloading method for a digital broadcast receiver, comprising:  
selecting a downloading mode and receiving a new program name to be downloaded;

receiving data corresponding to said program name;

temporarily storing the received new program in a first memory;

15 writing '0' in a version byte domain of a second memory wherein a program has been stored;

deleting a main program in a main program domain of said second memory;

writing the new program which has been temporarily stored in the first memory in the main program domain; and

writing a version number of the new program in the version byte domain.

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7. The method according to claim 6, wherein a packet identifier (PID) is used as the program name to be downloaded.

8. The method according to claim 6, wherein the first memory is a RAM.

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9. The method according to claim 6, wherein the second memory is a flash memory.

10. A downloading method for a digital broadcast receiver, comprising:  
5 a first step for recognizing a version byte of a main memory wherein a main program is stored when system power is on;

a second step for downloading a new program by which a downloading mode is automatically selected, when said version byte is '0'; and

10 a third step for processing the main program which has been stored, when said version byte is not '0'.

11. The method according to claim 10, wherein the second step comprises: receiving a new program name to be downloaded;

15 receiving data which corresponds to the new program name;

temporarily storing the received data corresponding to the new program in a RAM;

writing '0' in a version byte domain of the main memory wherein the main program has been stored;

20 deleting a main program in a main program domain of said main memory;

writing the new program which has been temporarily stored in the RAM in the main program domain of said main memory; and

writing a version number of the new program in the version byte domain.

12. The method according to claim 11, wherein a packet identifier (PID) is  
25 used as the program name to be downloaded.

13. The method according to claim 11, wherein the main memory comprises:  
a version byte domain wherein a version number of a main program;  
a downloading program domain wherein a downloading program is stored to  
5 receive new data; and  
a main program domain wherein the main program is stored.

14. The method according to either claim 11 or claim 13, wherein the main  
memory is a flash memory.

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15. A downloading apparatus for a digital broadcast receiver, comprising:  
a signal process means for performing inverse-multiplexing of a supplied  
broadcast signal, for thereby separating said signal into a video signal stream, an  
audio signal stream and an additional information signal stream, respectively;  
15 an input means for receiving a downloading mode selected by a user and a  
program name which will be downloaded;  
a control means for receiving said addition information signal stream when  
receiving the downloading mode, for thereby controlling a system to be updated with  
a corresponding program;

20 a first store means for temporarily storing a new program which is transmitted  
during a program downloading operation;  
a second store means wherein a domain in which a program has been stored  
is updated with the new program in accordance with control of the control means;  
and  
25 a third store means for backing up the new program for which the

downloading operation has been completed.

16. The apparatus according to claim 15, wherein a packet identifier (PID) is used as said program name to be downloaded.

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17. The apparatus according to claim 15, wherein the first store means is a RAM.

18. The apparatus according to claim 15, wherein the second store means is  
10 a flash memory.

19. The apparatus according to claim 15, wherein the third second store means is a flash memory.

15 20. A downloading method for a digital broadcast receiver, comprising:  
selecting a downloading mode and receiving a new program name to be  
downloaded;

receiving data corresponding to said program name;  
temporarily storing the received new program in a first memory;  
writing '0' in a version byte domain of a second memory wherein a program  
has been stored;  
deleting a main program in a main program domain of said second memory;  
writing the new program which has been temporarily stored in the first  
memory in the main program domain;  
writing a version number of the new program in the version byte domain; and

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backing up the new program for which the downloading has been completed in a third memory.

21. The method according to claim 20, wherein when the program  
5 downloading operation is suspended due to an abnormal situation, after the system  
is rerun, an re-downloading operation is operated by processing the program which  
has been backed up in the third memory.
22. The method according to claim 21, wherein the abnormal situation is  
10 recognized by which '0' is written in the version byte domain of the second memory.
23. The method according to claim 20, wherein a PID is used as the program  
name to be downloaded.
- 15 24. The method according to claim 20, wherein the first memory is a RAM.
25. The method according to claim 20, wherein the second memory is a flash  
memory.
- 20 26. The method according to claim 20, wherein the third memory is a flash  
memory.